CLAIMS

1. (Original) A communication system for communication using wireless signals including downlink signals to and uplink signals from mobile stations, comprising,

hopping control means for indicating frequency hopping sequences for said downlink signals and said uplink signals,

a plurality of transceiver stations having broadcast channels and dedicated channels carried by said wireless signals,

zone manager means including,

hopping extraction means for extracting frequency hopping information from said hopping control means,

collision prediction means forming predictions of radio channel interference between dedicated channels,

switching control means responsive to said predictions for dynamic switching of said dedicated channels so as to avoid said interference.

2. (Original) The communication system of Claim 1 wherein said zone manager means includes a data base for storing said frequency hopping information for said downlink signals and uplink signals for mobile stations.

3. (Original) The communication system of Claim 1 wherein said zone manager means includes multiple discrete zone managers, each zone manager including a ZM-ZM interface manager for transmitting frequency hopping information between said zone managers.

4. (Original) The communication system of Claim 1 wherein said collision prediction means tracks hopping frequencies for multiple mobile stations for a prediction period.

5. (Original) The communication system of Claim 4 wherein said prediction period is fixed as one or more frames.

6. (Original) The communication system of Claim 4 wherein said prediction period is user defined.

7. (Original) The communication system of Claim 4 wherein said collision prediction means compares the hopping frequencies of radio resources for said multiple mobile stations to predict collision occurrences among said multiple mobile stations.

8. (Original) The communication system of Claim 1 wherein said zone manager means includes multiple discrete zone managers, each zone manager including a ZM-ZM interface manager for transmitting frequency hopping information among said zone managers, wherein said collision prediction means for one of said zone managers compares the hopping frequencies of radio resources for said multiple mobile stations to predict collision occurrences among said multiple mobile stations and wherein said collision prediction means communicates predicted collision occurrences to other of said zone managers.

9. (Original) The communication system of Claim 8 wherein said communication of said predicted collision occurrences causes said switching means to control switching of one or more bursts to avoid said predicted collision occurrences.

10. (Original) The communication system of Claim 1 wherein said collision prediction means tracks hopping frequencies for multiple mobile stations and said radio channel interference is cochannel interference.

11. (Original) The communication system of Claim 1 wherein said collision prediction means tracks hopping frequencies for multiple mobile stations and said radio channel interference is adjacent channel interference.

12. (Original) The communication system of Claim 1 wherein,

said plurality of transceiver stations include a home transceiver station and one or more assistant transceiver stations,

said zone manager means includes multiple discrete zone managers including a home zone manager for said home transceiver station for controlling the dedicated channels for particular mobile stations and one or more assistant zone managers for said assistant transceiver stations for controlling dedicated channels for ones of said particular mobile stations switched to said one or more assistant transceiver stations,

said collision prediction means for said home zone manager compares the hopping frequencies of radio resources for said particular mobile stations to predict radio channel interference between dedicated channels for said particular mobile stations and other mobile stations.

13. (Original) The communication system of Claim 1 wherein,

said plurality of transceiver stations includes first and second home transceiver stations and one or more assistant transceiver stations,

said zone manager means includes multiple discrete zone managers including first and second home zone managers for said first and second home transceiver stations for controlling the dedicated channels for first particular mobile stations and for second particular mobile stations, respectively, and one or more assistant zone managers for said one or more assistant transceiver stations, respectively, for controlling dedicated channels for ones of said first particular mobile stations and ones of said second particular mobile stations switched to one or more of said assistant transceiver stations,

said collision prediction means for said first home zone manager compares the hopping frequencies of radio resources for said first particular mobile stations and for said second particular mobile stations to predict radio channel interference among dedicated channels for said first particular mobile stations and for said second particular mobile stations.

14. (Original) The communication system of Claim 13 wherein each of said zone managers includes a data base for storing said frequency hopping information for said downlink signals and uplink signals for mobile stations.

15. (Original) The communication system of Claim 13 wherein each of said zone managers includes a ZM-ZM interface manager for transmitting frequency hopping information among said zone managers.

16. (Original) The communication system of Claim 13 wherein said collision prediction means for each home zone manager tracks hopping frequencies for multiple mobile stations for a prediction period.

17. (Original) The communication system of Claim 16 wherein said prediction period is fixed as one or more frames.

18. (Original) The communication system of Claim 16 wherein said prediction period is user defined.

19. (Original) The communication system of Claim 16 wherein said collision prediction means for each of said home zone managers compares the hopping frequencies of radio resources for said multiple mobile stations to predict collision occurrences among said multiple mobile stations.

20. (Original) The communication system of Claim 19 wherein said communication of said predicted collision occurrences causes said switching means to control switching of one or more bursts to avoid said predicted collision occurrences.

21. (Original) The communication system of Claim 13 wherein said collision prediction means for each of said home zone managers tracks hopping frequencies for multiple mobile stations and said radio channel interference is cochannel interference.

22. (Original) The communication system of Claim 13 wherein said collision prediction means for each of said home zone managers tracks hopping frequencies for multiple mobile stations and said radio channel interference is adjacent channel interference..

23. (Original) The communication system of Claim 1 wherein a particular mobile station, MS_i communicates on a traffic channel, TCH_i, with a transceiver station, BTS_i, using hopping sequence, FHS_i, and an offset, $MAIO_i$, and wherein another particular mobile station, MS_j, communicates on traffic channel, TCH_j, with a transceiver station, BTS_j, using hopping sequence, FHS_j, and offset, $MAIO_j$ and wherein said collision prediction means forms predictions of radio channel interference between traffic channel, TCH_i, and traffic channel, TCH_j, when traffic channel, TCH_j is a candidate to switch to transceiver station, BTS_i, and wherein said switching control means is responsive to said predictions for dynamic switching of said and traffic channel, TCH_j, so as to avoid said interference.

24. (Original) In a communication system for communication using wireless signals including downlink signals to and uplink signals from mobile stations, the method comprising,

indicating frequency hopping sequences for said downlink signals and said uplink signals,

broadcast channels and dedicated channels carried by said wireless signals from a plurality of transceiver stations,

managing fast macrodiversity switching and frequency hopping including,

extracting frequency hopping information from said frequency hopping sequences,

forming predictions of radio channel interference between dedicated channels,

dynamic switching of said dedicated channels so as to avoid said interference.

25. (Original) In the communication system of Claim 24 wherein said managing step stores said frequency hopping information for said downlink signals and uplink signals.

26. (Original) In the communication system of Claim 24 wherein said managing step transmits frequency hopping information among discrete zone managers.

27. (Original) In the communication system of Claim 24 wherein said collision prediction tracks hopping frequencies for multiple mobile stations for a prediction period.

28. (Original) In the communication system of Claim 27 wherein said prediction period is fixed as one or more frames.

29. (Original) In the communication system of Claim 27 wherein said prediction period is user defined.

30. (Original) In the communication system of Claim 27 wherein said collision prediction compares the hopping frequencies of radio resources for said multiple mobile stations to predict collision occurrences among said multiple mobile stations.

31. (Original) In the communication system of Claim 24 wherein said collision prediction tracks hopping frequencies for multiple mobile stations and said radio channel interference is cochannel interference.

32. (Original) In the communication system of Claim 24 wherein said collision prediction tracks hopping frequencies for multiple mobile stations and said radio channel interference is adjacent channel interference.